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## On Properly 3-Realizable Groups

We study the class of those finitely presented groups which are “properly 3-realizable”, i.e., those groups  $G$  for which there exists a compact 2-polyhedron having  $G$  as fundamental group and whose universal cover is proper homotopy equivalent to a 3-manifold (with boundary). This property would allow us to use duality arguments in the study of certain low-dimensional proper invariants of the group  $G$ . We enumerate some of the results obtained on this class of groups from previous work, as well as we present a new result that assures that certain amalgamated free product of groups  $G_1 *_F G_2$  (HNN-extensions  $G *_F$ ), over a cyclic group  $F$ , are properly 3-realizable. The question of whether or not every finitely presented group is properly 3-realizable still remains open.

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